AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of applying a wear resistant coating material to a surface (22) of a piston ring (1), said method comprising the ~~following~~ steps[[,]] of:

~~application of~~ applying said coating material by a thermal spray process,

~~heat treatment of~~ heat treating said coating material at an elevated temperature and for a time effective to at least partially diffuse said coating material into the underlying surface, by exposing said material to heating temperature below the melting point of the coating material, and

~~and apply an~~ applying additional coating material ~~layer~~ layers (24) subject to successive heat treatments of each said applied coating material layer (24) in order to lay down on said piston ring surface (22) a plurality of layers (24) of same said coating material, wherein said resulting piston ring coating including the plurality of applied layers (24) has a porosity of between 1 to 15 vol%.

2. (Original) A method according to claim 1, wherein said piston ring (1) is moved relatively to a thermal spray device (3) and a heat treatment device (5) while applying said coating material (4) and heat treatment to said piston ring (1).

3. (Previously Presented) A method according to claim 1, wherein said piston ring (1) is rotated about its axis, in relation to a thermal spray device (3) and a heat treatment device (5), while continuously applying said coating material (4) and heat treatment.

4. (Previously Presented) A method according to claim 1, wherein said heat treatment of said piston ring (1) is provided by induction.

5. (Previously Presented) A method according to claim 1, wherein said resulting piston ring coating has an evenly distributed porosity.

6. (Canceled).

7. (Previously Presented) A method according to claim 1, wherein said resulting piston ring coating comprises open pores (23).

8. (Currently Amended) A method according to claim 1, wherein each of said coating material ~~layer~~ layers (24) typically has a thickness of between 0.005 to 0.4 mm.

9. (Previously Presented) A method according to claim 1, wherein said coating material is of pulverulent type when fed to said thermal spray process.

10. (Previously Presented) A method according to claim 1, wherein said coating material has a wire-like form when fed to said thermal spray process.

11. (Previously Presented) A method according to claim 1, wherein said heat treatment results in necks (23) in contact points between particles (21) in at least said coating.

12. (Currently Amended) A method according to claim 1, wherein said coating material comprises a metallic compound ~~chosen~~ selected from ~~a~~ the group consisting of Cr_2O_3 and Al_2O_3.

13. (Previously Presented) A method according to claim 1, wherein said coating material is a cermet.

14. (Withdrawn) A piston ring (1) coated with a wear resistant coating material, by a thermal spray process, wherein said wear resistant coating has been exposed to heat treatment of said coating material at an elevated heating temperature below the melting point of the coating material and for a time effective to at least partially diffuse said coating material into underlying surface, and an additionally applied coating material layer (24) subject to successive heat treatments of each said coating material layer in order to provide on said piston ring surface (22) a plurality of layers (24) of same said coating material and wherein said piston ring comprising necks (23) in contact points between particles (21) in at least said wear

resistant coating, wherein said piston ring coating has porosity between 1 to 15 vol%.

15. (Withdrawn) A piston ring (1) according to claim 14, wherein said piston ring (1) is moved in relation to a thermal spray device (3) and a heat treatment device (5) while applying said coating material (4) and heat treatment to said piston ring (1).

16. (Currently Amended) A piston ring (1) according to claim 14, wherein said piston ring (1) is rotated about its axis while continuously applying said coating material and heat treatment, and said heat treatment of said piston ring is provided by induction.

17. (Cancelled)

18. (Withdrawn) A piston ring (1) according to claim 14, wherein said piston ring coating has an evenly distributed porosity.

19. (Canceled)

20. (Withdrawn) A piston ring (1) according to claim 14, wherein said piston ring coating comprises open pores (23).

21. (Withdrawn) A piston ring (1) according to claim 14, wherein each of said coating material layers (24) typically have a thickness of between 0.005 to 0.4 mm.

22. (Withdrawn) A piston ring (1) according to claim 14, wherein said coating material is of pulverulent type when fed to said thermal spray process.

23. (Withdrawn) A piston ring (1) according to claim 14, wherein said coating material has a wire like form when fed to said thermal spray process.

24. (Withdrawn) A piston ring (1) according to claim 14, wherein said coating material comprises a metallic compound chosen from a group comprising of Cr_2O_3 and Al_2O_3.

25. (Withdrawn) A piston ring (1) according to claim 14, wherein said coating material is a cermet.

26. (Previously Presented) A method according to claim 2, wherein said piston ring (1) is rotated about its axis, in relation to a thermal spray device (3) and a heat treatment device (5), while continuously applying said coating material (4) and heat treatment.

27. (Previously Presented) A method according to claim 2, wherein said heat treatment of said piston ring (1) is provided by induction.

28. (Previously Presented) A method according to claim 3, wherein said heat treatment of said piston ring (1) is provided by induction.

29. (Withdrawn) A piston ring (1) according to claim 15, wherein said piston ring (1) is rotated about its axis while continuously applying said coating material and heat treatment.

30. (New) A piston ring coated with a wear resistant coating material formed by the method according to claim 1, wherein the piston ring comprises a surface and the wear resistant coating material partially diffused into the surface, the coating includes a plurality of as-heat treated applied layers (24) having a porosity of between 1 to 15 vol%, and the piston ring comprises necks (23) in contact points between particles (21) in at least the coating.